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LABOR FORCE AND UNEMPLOYMENT IN THE GROW REGION

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This report describes labor force statistics for the GROW Region, a six-county area in southern Ohio. The first section describes the policy uses of labor force and unemployment data. In the second section, definitions of unemployment, employment, and labor force are presented as well as information on sources of these data. Estimates for the GROW Region's labor force and extent of unemployment are presented in the third section. The implications of these data for local leaders are discussed in the final section.

Policy Uses of Labor Force and Unemployment Data

Accurate labor force statistics are important to rural communities. Estimates of unemployment rates affect the distribution of federal funds. The size of the labor force and the number of unemployed workers influence location or expansion decisions of potential employers. Total labor force, the number of unemployed, and the unemployment rate are used in determining the need for additional jobs and in setting priorities for industrial development efforts.

The rate of unemployment in a community is a significant factor in allocating federal grants and loans. The Economic Development Administration (within the Department of Commerce) makes grants, loans, and technical assistance available to "economically distressed" areas. An area may be designated as a redevelopment area if the local rate of unemployment exceeded the national average for twenty-four consecutive months. At present, all six GROW counties have obtained redevelopment area status. Fifty other counties in Ohio have done the same.[1] The Comprehensive Employment

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and Training Act (CETA) program, administered by the Office of Manpower Development, U. S. Department of Labor, allocated $2.9 billion in federal funds to state and local governments in 1976 based substantially on the local rate of unemployment and the number of people unemployed in the previous year. Part of this money is distributed to all areas, the amount being dependent on the number of unemployed. Part of the money is distributed in a similar way with a minimum unemployment rate necessary to participate. Still other money is distributed based on the number of unemployed people and other factors, such as the number of low-income families and the level of funding in the previous year.[2]

One of the more important factors considered by a business in the decision to locate or expand operations is the supply of locally available labor. This, in turn, strongly affects the cost of that labor. Industrial development projects use the full range of employment statistics to evaluate the condition of the local economy, its problems and potential.[3]

Definitions and Estimation Procedures

Labor force statistics typically include three things: total employment, total unemployment, and total labor force. Total employment is defined as persons who worked full-time or part-time for pay, or in self-employment, or for 15 hours or more without pay in a family business during a given week. Volunteers in religious, charitable, or political organizations are not considered employed. Persons not working due to vacations, temporary illness, bad weather, or labor-management disputes are considered employed. Total unemployment is defined as persons who were not employed and who tried to find a job within the preceding four weeks and are still available. Also included are persons waiting to be called back from a lay-off and those waiting to report to a new job within 30 days. Labor force is defined as the sum of

employment and unemployment, i.e., all persons who either have a job or are looking for a job.

The Bureau of Labor Statistics (BLS) within the U. S. Department of Labor issues monthly estimates of employment and unemployment for about 6,000 geographic areas, including the nation, the 50 states, 276 metropolitan areas, all counties, and cities with population of 25,000 or more. These national figures are based on data collected by the U. S. Department of Commerce in the Current Population Survey (CPS). The Commerce Department conducts interviews in approximately 58,000 households monthly.[4] The results of this national sample have been found to be highly reliable. At a 95 percent level of confidence the estimate for the number of unemployed will usually vary from the actual value by less than 3.6 percent. For example, given a labor force of 91 million people, if the survey indicated that 5 million people were unemployed, the estimated unemployment rate would be 5.5%. This means that given these circumstances ninety-five percent of the time the actual rate would lie between 5.3% and 5.7%.[5]

The BLS state estimates are currently being done in two ways. Most states' figures are being calculated by a 70-step process outlined in Handbook on Estimating Unemployment. Originally issued in 1960, the Handbook has been revised numerous times.[6] The most significant recent changes came in 1974 when the procedures were amended to produce employment estimates based on the number of persons by place of residence, rather than the number of jobs by place of work, as had been the case in the past. Statistical relationships used in the Handbook technique are largely taken from the CPS and Handbook results are benchmarked from CPS estimates for one month each year. Effective January 1978, monthly estimates for the ten largest-population states (which includes Ohio) were taken directly from the CPS.[7]

Presently the Bureau of Labor Statistics prepares employment estimates for Standard Metropolitan Statistical Areas (SMSA's) using a CPS-modified version of the Handbook technique. Two exceptions, New York City and Los Angeles are taken directly from the CPS.[8]

Though BLS issues county estimates, these are usually prepared by the state bureau of employment services. The Ohio Bureau of Employment Services (OBES) prepares county and city estimates subject to BLS guidelines. OBES first determines estimates based on the Handbook using statistical relationships from the 1970 Census. A state estimate, made by summing the county estimates, is then compared to the CPS state estimate. Employment and unemployment are adjusted separately by a constant factor for each, so that the sum of the parts equal the whole.[9] County results have been subject to frequent revisions in recent years. As the Bureau of Labor Statistics has refined the Handbook technique and the CPS figures, the OBES has kept pace by issuing updated county employment estimates for each year back to 1970. The latest set of figures were issued in March 1978.

As Table 1 shows, the difference can be significant. The U.S. Census figures are from 1.9 percentage points higher to 2.0 percentage points less than the OBES revised estimates. There is a difference in methodology in that the Census figures are derived from an actual head count whereas the OBES figures are an estimation. Beyond that though, the Census figures and the OBES figures are simply not comparable. The OBES figures are annual averages. Though sometimes presented as the 1970 unemployment rate, the Census figures are actually an accurate measure of the rate in April of 1970 without seasonal adjustment. A seasonally unadjusted rate of unemployment from one month out of a year is unlikely to equal the annual average. For this reason, Census figures should not be compared to other estimates.

Table 1 UNEMPLOYMENT RATES, BY SOURCE, GROW REGION, 1970 and 1976

	1970			1976		
	U.S. Census[1]	OBES[2]	OBES[3] (revised)	BLS[4]	OBES[5]	OBES[6] (revised)
Athens	5.9	5.1	4.7	8.6	8.8	8.9
Gallia	6.0	8.8	8.1	8.4	8.6	8.9
Jackson	7.6	10.4	9.6	9.6	9.8	10.0
Meigs	7.5	9.3	8.5	6.4	6.5	6.7
Pike	12.2	11.2	10.3	11.3	11.5	12.0
Vinton	8.3	7.1	6.6	8.7	8.9	9.0
GROW Region	7.2	8.0	7.4	8.7	8.9	9.1
Ohio	4.0	5.4	5.3	7.8	7.8	7.8

Sources:

1) U. S. Department of Commerce, Bureau of the Census, City and County Data Book, Government Printing Office, Washington, D. C., 1972.

2) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-70, Columbus, Ohio, 1975. Unemployment rates for 1970 were, of course, available much earlier than 1975. These earlier estimates were, however, based on a different definition of unemployment which is no longer in use.

3) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-70 (revised), Columbus, Ohio, 1978.

4) U. S. Department of Commerce, National Technical Information Service, State and County Employment, January-December 1976, Springfield, Virginia, 1977.

5) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-76, Columbus, Ohio, 1977.

6) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-76 (revised), Columbus, Ohio, 1978.

The 1970 OBES estimates and the 1976 BLS and OBES estimates were all calculated the same way. The OBES 1970 rates were issued in September of 1975 and revised in March of 1978. The BLS 1976 rates, which were actually computed by OBES, were issued in March of 1977. The OBES 1976 rates were issued in February of 1977 and revised in March of 1978. The methodology was the same, but the results for 1970 and 1976 varied considerably depending on when the estimates were issued. In both cases, as more information came in from the Current Population Survey, the Bureau of Labor Statistics revised its estimation of Ohio's employment figures which, in turn, required the Ohio Bureau of Employment Services to revise their estimations of Ohio's county employment figures.

As might be expected, the latest OBES figures are the most accurate. However, these figures will be further revised in early 1979 as statistical relationships from the 1970 Census used in the Handbook technique are replaced with estimates of those relationships based on the CPS. The county-level figures do not represent precise estimates (particularly in small-population counties), but only the best estimates available at the time of issue.

GROW Region Labor Force

In addition to the source of timeliness of the basic data, the method of interpreting the data is a significant factor in the development of employment statistics. Julius Shiskin, Commissioner of Labor Statistics, has identified seven different conceptual definitions for unemployment. Using these, the unemployment rate for 1975 varies from 2.7% to 11.5%. The official estimate, intended as a general purpose indicator, usually falls somewhere between the extremes, in this case 8.5%. Shiskin has pointed out that no single definition of unemployment can serve all the purposes for which such data are needed. The 2.7% rate measures hard-core unemployment, defined as persons

unemployed 15 weeks or longer. The 11.5% unemployment rate is much more broadly defined, taking in seekers of full and part-time work, discouraged workers, and one-half the number of people who work part-time, but want full-time jobs.[10]

The BLS official definition of unemployment does not include "discouraged workers". Discouraged workers are unemployed persons who have not actively sought a job within the past four weeks, even though they would like to work. The most common reason among the members of this group for not attempting to find employment is a perceived lack of opportunity. They do not look for jobs which they do not believe exist.[11]

Including discouraged workers in the labor force shows the potential size of the available labor force. This method attempts to measure how many people in an area would seek employment if the jobs were available. To estimate this for the GROW counties, labor force participation rates were calculated for the six counties and the state. It was assumed that, given the opportunity, the people of southeastern Ohio would participate in the labor force in the same ratio as Ohioans in general. As shown in Table 2, the four counties where the participation rate was less than the state figure, the state participation rate was used to compute the potential labor force. In Meigs and Pike Counties, where the county participation rate was higher, the reported labor force was considered to be already equal to its potential.

As column four of Table 2 illustrates, there are 4,750 discouraged workers in the GROW Region. There is a total potential labor force in the region of 69,201, including these discouraged workers. These estimates are reasonably conservative. For example, if sufficient employment opportunities were available the participation rate might be equivalent to Cuyahoga County's 76.6 percent. In this case the potential labor force in the GROW Region would be 71,006.

Table 2: POTENTIAL LABOR FORCE, GROW REGION, 1976

	Reported[1] Labor Force	Labor Force[2] Participation Rate	Potential[3] Labor Force	Discouraged[4] Workers
Athens	18,070	51.9	20,311	2,241
Gallia	11,715	64.3	12,359	644
Jackson	10,765	62.2	12,437	1,672
Meigs	11,223	90.2	11,223	0
Pike	8,580	72.4	8,580	0
Vinton	4,098	68.6	4,291	193
GROW Region	64,451	64.0	69,201	4,750
Ohio	4,730,000	71.8	4,730,000	0

Sources:

1) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-76, Columbus, Ohio, 1978.

2) Calculated by dividing the reported labor force by the estimated 1976 population aged 18 through 64 and multiplying times 100.

3) Calculated by multiplying the estimated population aged 18 through 64 times the labor force participation rate for Ohio. The Athens and Gallia County labor forces were specially estimated due to the presence of Ohio University in Athens and the Gallipolis State Institute in Gallipolis. Meigs and Pike Counties were not adjusted since their participation rates exceed the state average.

4) Calculated by subtracting reported labor force from potential labor force.

In Table 3 the potential labor force concept was used to compute adjusted rates of unemployment for 1970 and 1976. The adjusted rate for the GROW Region improved slightly from 1970 to 1976 while the adjusted rate for Ohio worsened considerably. Though the GROW adjusted rate is still nearly twice the state rate, it has improved relative to the state since 1970 when it was more than three times the Ohio rate. If the Cuyahoga County participation rate had been used, the GROW adjusted unemployment rate in 1976 would have been 17.5%, nearly three and a half percentage points higher.

Table 4 indicates that inclusion of discouraged workers in the labor force increases unemployment to 10,628 from 5,878.

Table 3: ADJUSTED UNEMPLOYMENT RATES, GROW REGION, 1970 AND 1976

	Reported Rate,[1] 1970	Adjusted Rate,[2] 1970	Reported Rate,[3] 1976	Adjusted Rate,[2] 1976
Athens	4.7	8.5	8.9	19.0
Gallia	8.1	16.7	8.9	13.6
Jackson	9.6	17.0	10.0	22.1
Meigs	8.5	24.4	6.7	6.7
Pike	10.3	25.5	12.0	12.0
Vinton	6.6	16.9	9.0	13.1
GROW Region	7.4	17.9	9.1	14.1
Ohio	5.3	5.3	7.8	7.8

Sources:

1) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-70 (revised), Columbus, Ohio, 1978.

2) Estimated by setting the labor force participation rate equal the state average. Athens and Gallia Counties were handled specially due to the large numbers of working-age persons ineligible for work at Ohio University (students) and Gallipolis State Institute (patients) respectively.

3) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-76, Columbus, Ohio, 1978.

Table 4: AVAILABLE LABOR, GROW REGION, 1976

	Unemployment Estimate	
	Reported[1]	Adjusted[2]
Athens	1,608	3,849
Gallia	1,040	1,684
Jackson	1,081	2,753
Meigs	747	747
Pike	1,032	1,032
Vinton	370	563
GROW Region	5,878	10,628
Ohio	369,000	369,000

Sources:

1) Ohio Bureau of Employment Services, Division of Research and Statistics, Table RS 219-76, Columbus, Ohio, 1978.

2) Estimated by setting the labor force participation rate equal to the state average. The Athens and Gallia County labor forces were specially estimated due to the presence of Ohio University in Athens and the Gallipolis State Institute in Gallipolis. Meigs and Pike Counties were not adjusted since their participation rates exceeded the state average.

Summary

Labor force statistics are important to business, government and local or regional industrial development groups. Firms planning site locations need to know the supply of available labor. Eligibility for federal programs administered by the Economic Development Administration and the Comprehensive Employment and Training Act depend at least in part on local unemployment rates. Local willingness to support inducements to industry depend on the need for additional jobs as reflected in unemployment rates.

Total employment is defined as persons who worked full-time or part-time for pay, or in self-employment, or for 15 hours or more without pay in a family business during a given week. Total unemployment is defined as persons who were not employed and who tried to find a job within the preceding four weeks and are still available. Labor force is simply the sum of total employment and total unemployment.

Labor force statistics are available for about 6,000 geographic areas in the U.S., including nearly all governmental units above the municipal level. The Bureau of Labor Statistics (BLS) issues national estimates based on data collected by the Department of Commerce in the Current Population Survey (CPS). State estimates, also issued by the BLS, are either based directly upon data from the CPS or are calculated by a technique outlined in the Handbook on Estimating Unemployment. County estimates are usually prepared by and are more readily available from the state bureaus of employment services. These estimates are calculated using a variation on the Handbook technique, set forth in BLS guidelines.

Estimates have improved as statistical relationships used in the calculation of unemployment and employment have become more reliable. For example, the 1976 estimate from the GROW Region's unemployment rate increased to 9.1%

from 8.9% in one year as more information from the CPS became available. The later the date of issue is, the better the estimates are considered to be.

There are seven different conceptual definitions of unemployment, ranging from one that includes only persons unemployed 15 weeks or longer to a definition which includes discouraged workers. Discouraged workers are unemployed persons who have not actively sought a job within the past four weeks, even though they are willing and able to work. The labor force participation rate is the percentage of adult population (18 to 64 years) in the labor force.

In the GROW Region the labor force participation rate in 1976 was 64 percent compared to 71.8 percent for Ohio. If job opportunities were available it is reasonable to expect the participation rate in the GROW Region would be equal to the state's rate. Assuming this, it is estimated that the GROW Region's labor force is 69,201. This means that there are 4,750 discouraged workers in the region. Including discouraged workers, this region has 10,628 unemployed workers, or 14.6 percent of the labor force.

The region's reported rate of unemployment for 1976 was 9.1 compared to 7.8 for Ohio. The adjusted unemployment rates were 14.1 and 7.8 for the GROW Region and Ohio respectively. While the region has improved relative to the state from 1970 to 1976, the level of unemployment remains high.

Research on Economic Development in the GROW Region

The GROW Community Development Project was established in 1974 to assist communities in addressing local problems such as economic development and public service provisions (GROW is an acronym for Generating Rural Ohio Wealth). A series of research projects have examined the region's economic problems and potential. A list of these research publications is available upon request. Contact: GROW Community Development Project, Jackson Area Extension Center, P. O. Box 32, Jackson, Ohio 45640.

NOTES

[1]Interview with Jerry Sipe, Economic Development Administration, Athens, Ohio, April 19, 1978.

[2]Interview with Lee Blanton, Office of Manpower Development, Columbus, Ohio, April 19, 1978.

[3]John R. Fernstrom, Bringing in the Sheaves (Corvallis: Oregon State University Extension Service, 1973), pp. 43-44.

[4]Bureau of Labor Statistics, Changes in Procedures for Estimating Labor Force and Unemployment in States and Local Areas (Washington, D. C.: U. S. Department of Labor, 1978), pp. 5 and 9.

[5]Employment and Training Report of the President (Washington, D. C.: Government Printing Office, 1977), p. 32.

[6]Bureau of Labor Statistics, BLS Handbook of Methods (Washington, D. C.: U. S. Department of Labor, 1976), p. 62.

[7]Interview with Robert Rank, Ohio Bureau of Employment Services, Columbus, Ohio, April 4, 1978.

[8]Bureau of Labor Statistics, op. cit., p. 7.

[9]Interview with Robert Rank, Ohio Bureau of Employment Services, Columbus, Ohio, April 4, 1978.

[10]Julius Shiskin, "Employment and Unemployment: The Doughnut or the Hole?", Monthly Labor Review, February, 1976, pp. 3-6.

[11]Factors influencing labor force participation rates are discussed in Peter S. Barth's "Unemployment and Labor Force Participation", Southern Economic Journal, 1968 and BLS Report No. 312, "How the Government Measures Unemployment", 1967.

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